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Quitting Smoking: Therapeutic in Mental Health Treatment

March 20, 2014

By Gemma Taylor, MSc, Jayne Greening, MMedSci, MMedEd and Paul Aveyard, PhD

Many patients report that smoking helps them with their stress and psychological disturbances. However, smoking may actually worsen some of these symptoms. When is the right time for your patients to quit?

BRIEF COMMUNICATION

Smoking rates in individuals with mental health disorders are much higher compared with the general population.¹ Persons with mental health disorders have a life expectancy 8 years shorter than the general population, and recent evidence suggests that much of this difference could be because of smoking.^{2,3} Psychiatric patients are just as motivated to stop smoking as other smokers and can also successfully quit.⁴ However, helping patients stop smoking may not be at the forefront of clinicians' minds during consultations. Clinicians may feel that they are taking away one of their patients' pleasures in life and that cessation may cause harm to their psychological state.^{5,6}

It has been proposed that the introduction of smoke-free policies in mental health services will significantly improve the health and wellbeing of this population.^{7,8} However, implementation of smoking cessation initiatives in non-research settings has been difficult with complex system barriers and poor consultant psychiatric support encountered.⁹

A recent study aimed to investigate the impact of smoking cessation on mental health in general and psychiatric populations.¹⁰ The researchers conducted a systematic review and meta-analysis of longitudinal studies and found 26 studies which examined change in psychological outcomes between smokers who stopped and smokers who continued smoking. On average participants were aged 44, smoked about 20 cigarettes a day, and were followed up for 6 months. Measures of mental health included anxiety, depression, positive affect, psychological quality of life and stress.

Stopping smoking is similar to antidepressant treatment

The results showed that smoking cessation is associated with significant improvements in symptoms of depression and anxiety and significant increases in positive affect and psychological quality of life. The association was similar between general and psychiatric populations, and there was no evidence that these findings were the results of confounding factors.

To interpret these findings, the authors compared the size of the association—known as the effect estimate—with that of antidepressant treatment for depression and anxiety disorders. They found that the effect of stopping smoking was equal to or greater than the effect of antidepressant treatment. These findings are also in line with literature reviews of cessation in patients with severe mental illness, suggesting that psychotic and depressive symptoms are not likely to worsen after cessation.^{11,12}

The data in this study were observational and therefore cannot prove causality. One could argue that it is an improvement in mental health that causes people to stop. The authors argued against this hypothesis as the majority of the studies included were secondary analyses of data derived from trials in which everyone attempted to quit smoking; therefore, whatever happened to their mental health occurred after they stopped smoking. Secondly, the review included one randomized trial, from which cause-effect associations can be derived. In this randomized trial, there were modest improvements in anxiety and depression in the stop-smoking arm, while the continue-smoking arm experienced very little change.¹³

Neurobiological explanation

The notion that stopping smoking improves mental health is supported by a biological model. Chronic tobacco use is associated with neuroadaptations in nicotinic pathways in the brain. Neuroadaptations in these pathways are associated with the occurrence of depressed mood, agitation, and anxiety shortly after a cigarette is smoked.¹⁴⁻¹⁷ This is also known as the withdrawal cycle and is marked by fluctuations in a smoker's psychological state throughout the day and could worsen mental health.^{15,16,18}

It has been found that the neurological functioning of quitters returns to the same level as non-smokers at 3 weeks after cessation. This is consistent with reports that psychological withdrawal symptoms subside after a few weeks.^{19,20} It is possible that smokers assume that because smoking alleviates these feelings, smoking a cigarette has improved their mental health when in fact it was smoking that caused these problems.

Implications

Many patients report that smoking helps them with their stress and psychological disturbances; however, smoking may actually worsen some of these symptoms. It is a common practice to postpone addressing patients' smoking behavior until after their mental health improves. On the other hand, we know for many patients, psychological problems will likely be ongoing—so when is the right time?

Suggestions to regard smoking as a treatable chronic illness may be worth revisiting.⁷ Reframing smoking as a chronic condition may make it more acceptable for psychiatrists to become more actively involved in treatment options for their patients. As the evidence suggests, there is no confirmation of harm from quitting; rather, the evidence suggests cessation may be therapeutic.

DISCLOSURES:

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Ms Taylor reports she was reimbursed by the UK Centre for Alcohol and Tobacco studies for travel and conference expenses and receives grants and personal fees from the National Coordinating Centre for Research Capacity Development. Dr Greening reports no conflicts of interest concerning the subject matter of this article. Dr Aveyard has worked ad hoc consulting for pharmaceutical companies who manufacture smoking cessation medications. He has no current affiliations with companies with any financial interest in smoking cessation.

1. Coultard M, Farrell M, Singleton N, Meltzer H. Tobacco, alcohol and drug use and mental health. London: The Office for National Statistics; 2002.
2. Chang CK, Hayes RD, Perera G, et al. Life expectancy at birth for people with serious mental illness and other major disorders from a secondary mental health care case register in London. *PLoS One*. 2011;6(5):e19590.
3. Royal College of Physicians, Royal College of Psychiatrists. Smoking and mental health. London: Royal College of Physicians; 2013.
4. Mendelsohn C, Montebello M. Smokers with mental illness: breaking down the myths. *Medicine Today*. 2013;14(8):53-56.
5. McNally L, Oyefeso A, Annan J, et al. A survey of staff attitudes to smoking-related policy and intervention in psychiatric and general health care settings. *J Public Health (Oxf)*. 2006;28:192-196.
6. Johnson JL, Moffat BM, Malchy LA. In the shadow of a new smoke free policy: A discourse analysis of health care providers' engagement in tobacco control in community mental health. *Int J Ment Health Syst*. 2010;28;4:23.
7. Champion J, Checinski K, Nurse J. Review of smoking cessation treatments for people with mental illness. *Adv Psychiatr Treat*. 2008;14:208-216.

8. Ratschen E, Britton J, McNeill A. Implementation of smoke-free policies in mental health in-patient settings in England. *Br J Psychiatry*. 2009;194:547-51.
9. Parker C, McNeill A, Ratschen E. Tailored tobacco dependence support for mental health patients: a model for inpatient and community services. *Addiction*. 2012;107(S2):18-25.
10. Taylor G, McNeill A, Girling A, et al. Change in mental health after smoking cessation: systematic review and meta-analysis. *BMJ*. 2014;348:g1151.
11. Banham L, Gilbody S. Smoking cessation in severe mental illness: what works? *Addiction*. 2010;105:1176-1189.
12. Ragg M, Gordon R, Ahmed T, Allan J. The impact of smoking cessation on schizophrenia and major depression. *Australas Psychiatry*. 2013;21:238-245.
13. Dawkins L, Powell JH, Pickering A, et al. Patterns of change in withdrawal symptoms, desire to smoke, reward motivation and response inhibition across 3 months of smoking abstinence. *Addiction*. 2009;104:850-858.
14. Wang H, Sun X. Desensitized nicotinic receptors in brain. *Brain Res Brain Res Rev*. 2005;48:420-437.
15. Benowitz NL. Nicotine addiction. *Prim Care*. 1999;26:611-631.
16. Benowitz NL. Nicotine addiction. *N Engl J Med*. 2010;362:2295-2303.
17. Mansvelder HD, McGehee DS. Cellular and synaptic mechanisms of nicotine addiction. *J Neurobiol*. 2002;53:606-617.
18. Parrott AC. Does cigarette smoking cause stress? *Am Psychol*. 1999;54:817-820.
19. Mamede M, Ishizu K, Ueda M et al. Temporal change in human nicotinic acetylcholine receptor after smoking cessation: 5IA SPECT study. *J Nucl Med*. 2007;48:1829-1835.
20. Hughes JR. Effects of abstinence from tobacco: valid symptoms and time course. *Nicotine Tob Res*. 2007;9:315-327.

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